

DETAILED ACTION

Reply period is reset

Where for any reason it becomes necessary to remail any action (MPEP § 707.13), the action should be correspondingly redated, as it is the remailing date that establishes the beginning of the period for reply. A supplementary action after a rejection explaining the references more explicitly or giving the reasons more fully, even though no further references are cited, establishes a new date from which the statutory period runs. The following office action is being remailed because claim 1 is not grouped with claim 9. The rejection of claim 1 under “intended use” is also deleted.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

As per claim 9, applicant recites “...the template device providing the computer with information permitting one or more geometric characteristics of the surface to be accurately defined by said computer”. As further evident from claims 3- 4, said template device has parallel sides which are substantially aligned with perspective defining edges of said surface. [0019] of the specification teaches “a sheet that bears markings conforming to a *rectangular* frame or outline 9 with opposing sides being

parallel. The template devices 6 and 7 are orientated as shown, such that their respective rectangular frames 9 are disposed with two of their parallel sides aligned substantially parallel to the *vertical edges* of the respective walls and the other two parallel sides aligned substantially parallel to the *horizontal edges* of the walls. By this means, the perspective of the wall surfaces, as viewed in the photograph, can be derived, to an acceptable degree of accuracy, by extrapolation from the well defined edges of the frames on the template devices". The specification further teaches in the same paragraph "The vanishing points, or *intersection points of projected parallel lines* on the surface subjected to the perspective of the photograph, constitute critical physical characteristics of the scene as viewed and their location can, if desired, be improved by iteration or by other known techniques". However, nowhere in the specification is there any teaching of seamless surfaces or irregular shaped surfaces (i.e., as found in contemporary designs/ architecture or surfaces having shapes other than rectangular such as polygon, circle, and concave or convex shaped) and it is only limited and certain surfaces that said claimed method "mapping a surface" would correspond to. Therefore, the template device does not correspond to recognize all surfaces or "a surface" corresponding to any surface as claimed and would fail to operate or would operate improperly.

The "mapping arrangement" as per claim 1 has the same deficiency.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3- 7 are rejected under 35 U.S.C. 112 first and second paragraphs as attempting to define a product (i.e., machine or apparatus) entirely by virtue of its function, in the absence of any recited structure.

Products must distinguish over the prior art in terms of their structure (or structure + structure's function when claimed functionally) rather than function alone (MPEP 2114). Therefore, an "apparatus" not having structural limitations fails to "particularly point out and distinctly claim ..." the invention in accordance with 35 U.S.C. 112, 2nd paragraph.

Furthermore, while the specification disclosure may be enabling for a plurality of structural elements performing the claimed functions [1], the specification does not reasonably provide enablement for a single structural element (or no structural elements) performing all of the claimed functions. That is, given the claim in question, the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims ("A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph" because a single means claim covers "every conceivable means for achieving the stated purpose" and "the

specification disclosed at most only those means known to the inventor" - *MPEP, at paragraph 2164.08(a)*). Currently, the single claimed structural element (i.e., the "mapping arrangement") that performs a multitude of functions, where the functions are disclosed as being performed by separate structural elements violates the 112, 1st paragraph enablement requirement. That is, a single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor (*In re Hyatt*, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983)).

Applicant is advised to define the apparatus by virtue of the individual structural element that serve to perform the individual functions recited in the corresponding method claim.

[1] Even when an apparatus is disclosed as being computer implemented (e.g., software implemented on hardware), the requirement remains that there be some structure recited in the body of the claim (e.g., a processor and a memory storing a program which when implemented performs the method steps). For purposes of "means plus function" language, individual disclosed steps corresponding to computer program elements operating on a processor (e.g., inputting, filtering, detecting and resolving) may be considered as separate means (*Dossel*, 115 F.3d at 946–47, 42 USPQ2d at 1885).

Claims 3- 7 are rejected by virtue of their dependency upon claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3- 6 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Petrich (US PAP 2003/ 0002730).

As per claims 1 and 9, Petrich teaches temporarily attaching to the surface a template device carrying marks of known dimensions and at known relative orientations (corresponding to target device 102 placed on the ground at the time of capture) see [0027] and fig. 13- 16. [0045] teaches said target to be of different shapes (i.e., flat or rigid central portion and 3D dome or three dimensional central portion) and sizes with different areas (i.e., 1601- 1604) of proportional dimension and size;

providing a photograph of said surface with the template device in situ (corresponding to fig. 1- 2 with target 102 placed on the ground); and
inputting a digital representation of said photograph to a computer provided with software *capable*, under user control, of changing the appearance of an image of the surface displayed thereby (corresponding to the computer software in the abstract to ascertain and record attributes of the photo composites). Examiner would also point to

[0026] teaching combining/ using images with assigned attributes with other images to create virtual reality background and photorealistic montage/ composite via user);

the template device (i.e., target device 1703) providing the computer with information permitting one or more geometric characteristics of the surface to be accurately defined (corresponding to directing the position of the cameras and the attributes (i.e., lighting direction, perspective and scale) of the light source 1712 of the background image 1708 to combine footage with computer animation) see [0046] and figure 17. [0026] teaches the recorded attributes or attribute values (i.e., information provided by template) of the subject image may be used to create virtual reality backgrounds (i.e., defining of the geometric characteristics of the surface) produced from a three-dimensional computer model rendering of an environment having similar lighting, perspective, and scale conditions. [0033] of Petrich also teaches software (i.e., computer utilizing software) and the target device (702 and 706) and the ground surface angle (i.e., geometric characteristics of the surface) mathematically ascertained therefrom into the computer.

As per claim 3, Petrich teaches said markings include components defining a rectangular frame with opposing sides being substantially parallel, thereby permitting the accurate derivation of perspective data for the surface (corresponding to other shapes used such as rectangular shape as well as others which are symmetrical) see [0045].

As per claim 4, Petrich broadly teaches the parallel sides are substantially aligned with perspective defining edges of said surface (corresponding to other shapes

used such as rectangular, elliptical, rings and as well as others shapes which are symmetrical and which may be applied; said applied shape conforming to or substantially aligned with corresponding edge of surface) see [0045].

As per claim 5, Petrich teaches at least a portion of the template device is formed to reflect incident light to a predetermined extent, thereby permitting the derivation of suitable brightness data for the surface (corresponding to the target device 801 used to reflect the key light source) see [0035].

As per claim 6, Petrich teaches the template device further comprises a directional indicator (i.e., lighting direction and perspective which indicate respective direction of light and viewing direction provided by target device) to indicate the orientation of patterns or ornamentation incorporated by means of the software into surface treatments to be displayed on the image of said surface (corresponding to the recorded attributes or attribute values (i.e., information provided by the target device) of the subject image may be used to create virtual reality backgrounds (i.e., defining of the geometric characteristics of the surface) produced from a three-dimensional computer model rendering of an environment having similar lighting direction, perspective, and scale condition) see [0026].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petrich in view of Kumar et al (US Patent 5982383), hereinafter, Kumar.

As per claim 7, Petrich does not teach said directional indicator comprises a broad arrowhead device.

However, Kumar teaches said directional indicator comprises a broad arrowhead device (corresponding to direction template 62 of fig. 2) see fig. 2. Fill pattern button 92 of fig. 3 also allows a user to define a pattern for a given shape.

It would have been made obvious to one of ordinary skilled in the art at the time the invention was made to incorporate the teachings of Kumar into Petrich to provide intelligent templates and pre-drawn shapes that make creating graphics much simpler and quicker and thus increase the productivity of a person or persons by allowing the user to create clean, professional drawings see column 1 lines 60- 65.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

March 6, 2009

/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624